

Notice of Allowability

Application No.

10/761,630

Examiner

Brian Goldberg

Applicant(s)

TANNO, RYUJI

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 1/20/2004.
2. ☒ The allowed claim(s) is/are 1-15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>6/7/2004</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

Claims 1-15 are allowed.

Regarding claims 1-5, the prior art does not disclose or suggest "wherein when a viscosity of the ink is μ and pressure loss which allows the ink to be stably jetted is h , a length L and a diameter d of the ink supply line satisfy an inequality: $(2.823 \times 10^9 \times d^4) / L > \mu / h$ " in combination with the remaining claim elements as set forth in claim 1, and the similarly claimed language of claims 2-5.

Regarding claims 6-10, the prior art does not disclose or suggest "wherein when a viscosity of the ink is μ , a length L and a diameter d of the ink supply line satisfy an inequality: $(1.411 \times 10^9 \times d^4) / L > \mu$ " in combination with the remaining claim elements as set forth in claim 6, and the similarly claimed language of claims 7-10.

Regarding claims 11-15, the prior art does not disclose or suggest "wherein when a predetermined amount of ink having a predetermined viscosity is jetted from the recording head, a flow velocity of ink in the ink supply line is V , a length L and a diameter d of the ink supply line satisfy an inequality: $(2500 \times d^2) / L > V$ " in combination with the remaining claim elements as set forth in claim 11, and the similarly claimed language of claims 11-15.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawase (US 6315402) discloses "an ink jet printer comprising: a recording head (1 of Fig 2) having nozzles for jetting ink onto a recording medium; an intermediate tank (50 of Fig 2) for temporarily storing ink in a lower position of the recording head; and an ink supply line (tube from 50g to 1 of Fig 2 or 45 of Fig 11) for feeding the ink between the intermediate tank and the recording head," but fails to disclose the allowable limitations of base claims 1, 6, or 11 as set forth above.
2. Nakajima (US 2004/0113971) discloses "an ink jet printer comprising: a recording head (3 of Fig 1) having nozzles for jetting ink onto a recording medium; an intermediate tank (T of Fig 1) for temporarily storing ink in a lower position of the recording head; and an ink supply line (P of Fig 1) for feeding the ink between the intermediate tank and the recording head," but fails to disclose the allowable limitations of base claims 1, 6, or 11 as set forth above.

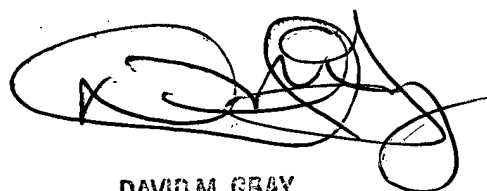
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJG

A handwritten signature in black ink, appearing to read 'DAVID M. GRAY', is written over a circular stamp.

DAVID M. GRAY
PRIMARY EXAMINER